

Name: Class:

Multiply by a power of ten: with exponents.

Find the value of the following expressions.

a. 5×10^3

d. 7×10^2

b. 15×10^4

e. 92×10^3

c. 1×10^7

f. 70×10^5



Name: Class:

Multiply by a power of ten: with exponents.

Find the value of the following expressions.

a. 5×10^3

Let's multiply

$$\begin{aligned} 5 \times 10^3 &= 5 \times (10 \times 10 \times 10) \\ &= 5 \times 1\,000 \\ &= 5\,000 \end{aligned}$$

So, $5 \times 10^3 = 5\,000$

d. 7×10^2

Let's multiply

$$\begin{aligned} 7 \times 10^2 &= 7 \times (10 \times 10) \\ &= 7 \times 100 \\ &= 700 \end{aligned}$$

So, $7 \times 10^2 = 700$



b. 15×10^4

Let's multiply

$$\begin{aligned} 15 \times 10^4 &= 15 \times (10 \times 10 \times 10 \times 10) \\ &= 15 \times 10\,000 \\ &= 150\,000 \end{aligned}$$

So, $15 \times 10^4 = 150\,000$

e. 92×10^3

Let's multiply

$$\begin{aligned} 92 \times 10^3 &= 92 \times (10 \times 10 \times 10) \\ &= 92 \times 1\,000 \\ &= 92\,000 \end{aligned}$$

So, $92 \times 10^3 = 92\,000$

c. 1×10^7

Let's multiply

$$\begin{aligned} 1 \times 10^7 &= 1 \times (10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10) \\ &= 1 \times 10\,000\,000 \\ &= 10\,000\,000 \end{aligned}$$

So, $1 \times 10^7 = 10\,000\,000$

f. 70×10^5

Let's multiply

$$\begin{aligned} 70 \times 10^5 &= 70 \times (10 \times 10 \times 10 \times 10 \times 10) \\ &= 70 \times 100\,000 \\ &= 7\,000\,000 \end{aligned}$$

So, $70 \times 10^5 = 7\,000\,000$